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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/588,983

08/10/2006

Peter Rieth

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EXAMINER

LAZO, THOMAS E

ART UNIT

PAPER NUMBER

3745

MAIL DATE

DELIVERY MODE

03/09/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/588,983	Applicant(s) RIETH, PETER	
	Examiner Thomas E. Lazo	Art Unit 3745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16-19, 21-23 and 25-30 is/are rejected.
- 7) ☒ Claim(s) 20 and 24 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8/10/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

Claims 16, 19, 21, and 22 are objected to because of the following informalities:

In claim 16, lines 6-7, “can be swiveled by use of additional elements, such as tie rods and a steering arm” should be --are swiveled by tie rods and a steering arm--.

In claim 19, lines 3-4, “preferably by means of a servo drive unit and a gear or electromagnet, if applicable” should be deleted or positively claimed.

In claim 21, lines 3-4, “the valve gate” should be --a valve gate-- (antecedent basis).

In claim 22, “preferably” and “or” should be removed to more clearly claim the invention.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 16-19 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Bohner (5,517,899). Bohner discloses a vehicle steering mechanism for motor vehicles with a steering handle (not shown) that can be operated by a driver, a positioning assembly coordinated with steered vehicle wheels, wherein the assembly is connected with the steering handle and the

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steered vehicle wheels can be swiveled by use of additional elements to set a specifically desired steering angle, and the positioning assembly is a hydraulic assembly 15 with two hydraulic chambers which are divided by a hydraulic piston and can be stressed by pressure of a hydraulic pressure source 26, and a valve unit 25, wherein the hydraulic assembly is connected with the hydraulic pressure source 26 and a steering support can be adjusted by the valve unit 25, the valve unit 25 has a hydraulic slide valve by which a steering support is controlled through a continuous adjustment of a pressure difference between the two hydraulic chambers, the valve unit 25 is a continuously adjustable slide valve with three final switching positions, with a first final switching position in which a pressure medium can be introduced into the two hydraulic chambers or can be removed from the two hydraulic chambers, with a second final switching position, in which the pressure medium can be introduced into a first hydraulic chamber and can be removed from a second hydraulic chamber, and with a third final switching position, in which the pressure medium can be removed from the first hydraulic chamber and can be introduced into the second hydraulic chamber, the hydraulic slide valve 25 of an electrical actuator can be continuously adjusted between the different final switching positions through a linear movement of a valve gate by means of an electromagnet, the hydraulic slide valve 25 has control edges, by which a specific pressure difference between the two hydraulic chambers is adjusted continuously during a linear movement of the valve gate.

Claims 16 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakamura et al. (5,396,969). Nakamura et al. discloses a vehicle steering mechanism for motor vehicles with a steering handle 7 that can be operated by a driver, a positioning assembly coordinated

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with steered vehicle wheels 1, wherein the assembly is connected with the steering handle 7 and the steered vehicle wheels 1 can be swiveled by use of additional elements to set a specifically desired steering angle, and the positioning assembly is a hydraulic assembly 3 with two hydraulic chambers which are divided by a hydraulic piston and can be stressed by pressure of a hydraulic pressure source 10, and a valve unit 9, wherein the hydraulic assembly is connected with the hydraulic pressure source and a steering support can be adjusted by the valve unit 9, the valve unit has at least four analogized valves D1-D4 to control the pressure in both of the hydraulic chambers.

Claims 16-19, 21, 23, and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Matsunaga et al. (4,940,105). Matsunaga et al. discloses a vehicle steering mechanism for motor vehicles with a steering handle 322 that can be operated by a driver, a positioning assembly coordinated with steered vehicle wheels 336, wherein the assembly is connected with the steering handle 322 and the steered vehicle wheels can be swiveled by use of additional elements to set a specifically desired steering angle, and the positioning assembly is a hydraulic assembly 337 with two hydraulic chambers which are divided by a hydraulic piston and can be stressed by pressure of a hydraulic pressure source 338, and a valve unit 344, wherein the hydraulic assembly is connected with the hydraulic pressure source 338 and a steering support can be adjusted by the valve unit 344, the valve unit 344 has a hydraulic slide valve by which a steering support is controlled through a continuous adjustment of a pressure difference between the two hydraulic chambers, the valve unit 344 is a continuously adjustable slide valve with three final switching positions, with a first final switching position in which a pressure medium can be

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introduced into the two hydraulic chambers or can be removed from the two hydraulic chambers, with a second final switching position, in which the pressure medium can be introduced into a first hydraulic chamber and can be removed from a second hydraulic chamber, and with a third final switching position, in which the pressure medium can be removed from the first hydraulic chamber and can be introduced into the second hydraulic chamber, the hydraulic slide valve 344 of an electrical actuator can be continuously adjusted between the different final switching positions through a linear movement of a valve gate by means of an electromagnet, the hydraulic slide valve 344 has control edges, by which a specific pressure difference between the two hydraulic chambers is adjusted continuously during a linear movement of the valve gate, a safety valve 345 is provided for directly connecting the two hydraulic chambers with one another, a torque sensor 326 is provided, which determines the torque on a steering wheel shaft of the vehicle steering mechanism, and a steering support can be adjusted in accordance with the determined torques.

Claims 16, 22, 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Mouri et al. (6,050,359). Mouri et al. discloses a vehicle steering mechanism for motor vehicles with a steering handle 5 that can be operated by a driver, a positioning assembly coordinated with steered vehicle wheels 23, wherein the assembly is connected with the steering handle 5 and the steered vehicle wheels 23 can be swiveled by use of additional elements to set a specifically desired steering angle, and the positioning assembly is a hydraulic assembly 13 with two hydraulic chambers which are divided by a hydraulic piston 37 and can be stressed by pressure of a hydraulic pressure source, and a valve unit 47, wherein the hydraulic assembly is connected

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with the hydraulic pressure source and a steering support can be adjusted by the valve unit 47, the valve unit 47 has four analogized valves which can be operated in an analogous manner to control the pressure in both of the hydraulic chambers, two or more hydraulic pressure sensors 51,53 are provided for determining the hydraulic pressure in the two or more hydraulic chambers, and a steering support can be adjusted in accordance with the determined pressures.

Claims 16-19, 21, and 27-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Horwath et al. (6,450,285). Horwath et al. discloses a vehicle steering mechanism for motor vehicles with a steering handle 7 that can be operated by a driver, a positioning assembly coordinated with steered vehicle wheels 4, wherein the assembly is connected with the steering handle 7 and the steered vehicle wheels 4 can be swiveled by use of additional elements to set a specifically desired steering angle, and the positioning assembly is a hydraulic assembly 18 with two hydraulic chambers 9,13 which are divided by a hydraulic piston and can be stressed by pressure of a hydraulic pressure source 25, and a valve unit 17, wherein the hydraulic assembly is connected with the hydraulic pressure source and a steering support can be adjusted by the valve unit, the valve unit has a hydraulic slide valve by which a steering support is controlled through a continuous adjustment of a pressure difference between the two hydraulic chambers, the valve unit is a continuously adjustable slide valve with three final switching positions, with a first final switching position in which a pressure medium can be introduced into the two hydraulic chambers or can be removed from the two hydraulic chambers, with a second final switching position, in which the pressure medium can be introduced into a first hydraulic chamber and can be removed from a second hydraulic chamber, and with a third final switching

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position, in which the pressure medium can be removed from the first hydraulic chamber and can be introduced into the second hydraulic chamber, the hydraulic slide valve 17 of an electrical actuator can be continuously adjusted between the different final switching positions through a linear movement of a valve gate by means of an electromagnet, the hydraulic slide valve 17 has control edges, by which a specific pressure difference between the two hydraulic chambers is adjusted continuously during a linear movement of the valve gate, the steering mechanism is a steering mechanism with an open center in which, in a neutral position of the steering mechanism, such as when the steering wheel is in the straight-ahead position, essentially no pressure difference is present between the chambers divided by the hydraulic piston, and the hydraulic pressure source has a pump 25 which is connected with the drive motor of the motor vehicle via a drive unit, the steering mechanism is a steering mechanism with a closed center in which, in a neutral position of the steering mechanism a hydraulic pressure or a pressure difference can essentially be present in the chambers divided by the hydraulic piston, and the hydraulic pressure source has a pump 25 which can be connected with the motor vehicle drive unit via a coupling unit and by a drive unit, the hydraulic pressure source has a high pressure reservoir 24, and the pump is operated in order to load the high pressure reservoir 24, a hydraulic pressure sensor (not numbered) is provided, and the hydraulic pressure in the high pressure reservoir is determined by the pressure sensor.

Allowable Subject Matter

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Claims 20 and 24, are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Contact Information

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Thomas Lazo whose telephone number is (571) 272-4818. The examiner can normally be reached on Monday-Friday from 8:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor Edward Look, can be reached on (571) 272-4820. The fax phone number for this Group is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Thomas E. Lazo/
Primary Examiner,
Art Unit 3745
March 3, 2009